

15. A method for the propagation of lytic organisms, comprising:
- a) providing a hollow fiber bioreactor containing multiple hollow fibers, and having a stable cell line growing in the extracapillary space (ECS) of said hollow fiber bioreactor;
  - b) introducing a lytic organism into said ECS, said lytic organism of a type capable of infecting said stable cell line; and
  - c) allowing said lytic organism to infect, and multiply within, the cells of the stable cell line.
16. A method according to claim 15 where said stable cell line has established a cell density within the ECS of  $10^6$  cells per milliliter prior to introduction of the lytic organism.
17. A method according to claim 15 where said stable cell line is selected from mammalian cell lines, insect cell lines, yeast cell lines and bacterial cell lines.
18. A method according to claim 15, further comprising harvesting said lytic organism from the hollow fiber bioreactor.
19. A method according to claim 15, wherein said lytic organism contains nucleic acid encoding a protein of interest that is expressed in the stable cell line following infection by the lytic organism.
20. A method according to claim 19 further comprising the step of harvesting said protein of interest from the hollow fiber bioreactor.
21. A method according to claim 15 where said stable cell line survives in the hollow fiber bioreactor for at least 10 days after infection.

22. A method according to claim 15 where said stable cell line survives in the hollow fiber bioreactor for at least 15 days after infection.

23. A method according to claim 15 where said stable cell line survives in the hollow fiber bioreactor for at least 20 days after infection.

24. A method according to claim 18 further comprising, after said harvest, repopulating said hollow fiber bioreactor with said stable cell line remaining after the harvest.

25. A method according to claim 20 further comprising, after said harvest, repopulating said hollow fiber bioreactor with said stable cell line remaining after the harvest.

G2

26. A method according to claim 15 where said lytic organism is a virus.

27. A method according to claim 26 where said virus is a baculovirus.

28. A method according to claim 26 where said virus is an adenovirus.

29. A method for studying the effects of molecules on a lytic organism, comprising:

a) providing a hollow fiber bioreactor containing multiple hollow fibers, and having a stable cell line growing in the extracapillary space (ECS) of said hollow fiber bioreactor, said stable cell line having a density of at least  $10^6$  cells per milliliter;

b) introducing a lytic organism into the ECS, said lytic organism of a type capable of infecting said stable cell line;

c) allowing said lytic organism to infect and multiply within the cells of the stable cell line; and